

## THE FLORA OF THE COATBRIDGE COUP

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Household refuse tips are well known as sites for unusual alien plants. In general these come from kitchen vegetable material, garden refuse and the debris from bird cages. In a previous paper (Macpherson & Macpherson, 1981) a comparison was made of the flora of two tips in the Glasgow area. These have now been closed and grassed over. However, material for disposal from Glasgow still goes to the coup north of Coatbridge, Lanarkshire (VC 77). As regular visits have been made to the site since 1993, and as it is due to close in 2000, it is considered appropriate to put on record some of the findings.

### SITE

The area was initially a natural hollow and in the early part of the 20<sup>th</sup> century was used as a pit for dumping material from an adjacent brickworks. In 1932 it became a coup for household refuse. Initially the material was simply dumped and spread out but recently there had been a requirement for household refuse to be covered within 24 hours. When possible, rubble is used but its availability has been reduced since imposition of the landfill tax. In the main, material for covering is now dug out from the periphery of the site. The result is that there is now a hillock dominating the surrounding relatively flat countryside. Over half the area on top was levelled three years ago to form a plateau. Recently, each working day a Harris Hawk is tethered on the edge of the plateau overlooking the residual dumping area. Whereas, in previous years there were hordes of seagulls, none were seen in the vicinity during two visits in 1999.

### METHODS

With permission from the Glasgow City Council Cleansing Department, the site has been visited at regular intervals over the past seven years. During the early survey period showy flowering plants were to be seen over most of the site, but since the material has been covered, the plants have been fewer in number and variety. However, interesting finds can still be made round the edges of the working area.

### RESULTS

Over the survey period a total of 177 different plants has been recorded. Of these 125 are native, in the main, either on unworked sections or by natural dispersal from surrounding areas. Of particular note in this connection is the assemblage of plants on the plateau. Although relatively flat, there are numerous small hollows where rainwater collects. Despite the relative altitude and the fact that it is windswept, in the three years since it was flattened it has become colonised by plants of wetlands and pools. In addition to soft-rush (*Juncus effusus*), jointed rush (*J. articulatus*) and red bartsia (*Odontites vernus*) of damp areas, reed mace (*Typha latifolia*), branched bur-reed (*Sparganium erectum* spp. *microcarpum*), mare's-tail (*Hippuris vulgaris*), tufted forget-me-not (*Myosotis laxa*), common spike-rush (*Eleocharis palustris*), bladder-sedge (*Carex vesicaria*) and floating sweet-grass (*Glyceria fluitans*) grow in relation to the pools. The bur-reed subspecies had previously been recorded in the adjacent 1km square and the bottle-sedge (Keith Watson) 2km distant, in its only other extant Lanarkshire site.

Sixteen native grasses were recorded, four waste ground plants including viper's-bugloss (*Echium vulgare*) and mignonette (*Reseda lutea*), three rushes, one sedge and one fern. Around the base there are five shrubby trees, mainly willows.

Although native in Britain, some plants undoubtedly arrive on site as a result of man's activity and, strictly speaking, should be classified as aliens (Macpherson *et al.*, 1996). Lesser sea-spurrey (*Spergularia marina*) is a prime example. This sea-side plant, now widely established along the roads in Lanarkshire (Macpherson & Macpherson 1998) was seen as a single clump on a ledge about 20 ft below the plateau. Otherwise the most noteworthy native seen was red goosefoot (*Chenopodium rubra*). This is a plant of cultivated and waste ground and tips, frequent in much of England but rare elsewhere (Stace, 1997). It is usually seen in small quantity but on this site has been the most common plant. Over the survey period many hundreds have been present, particularly on the eastern slopes and ledges. However the main purpose of the survey was to record those plants which are alien to Britain.

Many of the aliens are of widespread occurrence on roadside and waste ground e.g. *Epilobium ciliatum* (American willowherb), *Matricaria discoidea* (pineappleweed) and *Senecia squalidus* (Oxford ragwort). The more interesting aliens have been classified according to the probable source. Those considered to have had a kitchen origin are *Lycopersicon esculentum* (tomato) and *Solanum tuberosum* (potato). Twenty two species are believed to have had a garden origin and are listed in Table 1. Of the 14 plants which are presumed to have originated from bird-seed (Table 2), it is possible that some had another source of introduction. *Avena sativa*, *Brassica rapa* and *Pisum sativum* could be relics of cultivation and *Sisymbrium altissimum* and *S. orientale* are considered to be either bird-seed or grain seed aliens (Clement & Foster, 1994). *Trachysperma ammi* was the rarest plant recorded and could either have been a spice or bird-seed alien.

**Table 1. Garden refuse plants recorded on the Coatbridge coup 1993-99.**

<i>Antirrhinum majus</i>	snapdragon
<i>Buddleja davidii</i>	butterfly-bush
<i>Centaurea montana</i>	perennial cornflower
<i>Cotoneaster bullatus</i>	hollyberry cotoneaster
<i>Crocossia x crocosmiiflora</i>	montbrecia
<i>Erysimum cheiri</i>	wallflower
<i>Eschscholzia californica</i>	Californian-poppy
<i>Geranium x oxonianum</i>	Druce's crane's-bill
<i>Helianthus annuus</i>	sunflower
<i>Helianthus rigidus</i>	perennial sunflower
<i>Iberis umbellata</i>	garden candytuft
<i>Linnanthes douglasii</i>	meadow-foam
<i>Lonicera nitida</i>	Wilson's honeysuckle
<i>Lunaria annua</i>	honesty
<i>Pilosella aurantiaca</i> <i>spp. carpathicola</i>	fox-and-cubs
<i>Potentilla fruticosa</i> cv.	shrubby cinquefoil
<i>Prunus laurocerasus</i>	cherry laurel
<i>Rosa rugosa</i>	Japanese rose
<i>Spiraea x pseudosalicifolia</i>	confused bridewort
<i>Tanacetum parthenium</i>	feverfew
<i>Vinca minor</i> cv.	Lesser periwinkle
<i>Viola lutea</i> cv.	mountain pansy

**Table 2. Presumed bird-seed aliens recorded on the Coatbridge coup 1993-99.**

<i>Avena sativa</i>	cultivated oat
<i>Brassica rapa</i>	turnip
<i>Chenopodium strictum</i>	striped goosefoot
<i>Chenopodium suecicum</i>	Swedish goosefoot

<i>Lepidium sativum</i>	garden cress
<i>Linum usitatissimum</i>	flax
<i>Melilotus indicus</i>	small melilot
<i>Panicum miliaceum</i>	common millet
<i>Phalaris canariensis</i>	canary-grass
<i>Pisum sativum</i>	pea
<i>Sisymbrium altissimum</i>	tall rocket
<i>Sisymbrium orientale</i>	eastern rocket
<i>Trachysperma ammi</i>	ajowan
<i>Triticum turgidum</i>	rivet wheat

## DISCUSSION

In the previous article (Macpherson & Macpherson, 1981) comment was made that at one refuse tip the material was deposited in the crude state, while at the other the refuse was subjected to high density baling before deposition. There were fewer plant species at the latter. It was concluded that the treatment resulted either in a poorer medium for plant germination or that it had a smothering effect.

The reduction over the years in the quantity and diversity of aliens seen at the Coatbridge coup is similarly related to the smothering effect of the daily covering of the deposited refuse material.

Although still of interest, botanising on refuse tips is not now as rewarding as it was in the past.

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